



SEQUENCE LISTING

<110> Dong, Zheng Xin

<120> Analogues of GLP-1

<130> 00537-186002

<140> US 09/857,636

<141> 2001-06-07

<150> PCT/EP99/09660

<151> 1999-12-07

<150> US 60/111,255

<151> 1998-12-07

<150> US 09/206,601

<151> 1998-12-07

<160> 415

<170> FastSEQ for Windows Version 4.0

<210> 1

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<212> PRT

<213> Homo sapiens

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Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg		
			20					25					30		

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<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 2

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

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<221> VARIANT
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 <223> Xaa = N-alpha-HEPES-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesulfonic
 acid)-histidine)

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 3
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

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<220>
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 <221> VARIANT
 <222> 1
 <223> Xaa = Na-HEPA-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
 histidine)

<221> VARIANT
 <222> 2,29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 4
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

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<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 5
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

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<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 6
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

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<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 7

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

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<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 8

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

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<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 9

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1 5 10 15

Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa

20 25 30

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<221> VARIANT

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<223> Xaa = N-epsilon-dodecanesulfonyl-lysine

<221> VARIANT

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<223> this sequence has an amidated c-terminus

<400> 10

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1 5 10 15

Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa

20 25 30

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

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<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 11

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-(4-tetradecyl-piperazine)asparagine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 12

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 13

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<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = (1-tetradecylamino)asparagine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 13
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 14
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<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 31
 <223> Xaa = beta-alanine

<221> VARIANT
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 <223> Xaa = this sequence has a hydroxylated c-terminus

<400> 14
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
 20 25 30

<210> 15
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
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 <223> this sequence has a hydroxylated c-terminus

<400> 15

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

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<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 16

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

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<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = alpha-aminoisobutyric acid

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 17

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

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<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 18

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25						30		

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<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 19

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25						30		

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<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-alanine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 20

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

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<221> VARIANT

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 21

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

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<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 22

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 23

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<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 23

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 24

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<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 24

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 25
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-alanine

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-4-(2-aminoethyl)-1-carboxymethyl-piperazine-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 25
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 26
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<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 31
 <223> Xaa = Ava (5-aminovaleric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 26
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15												
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Xaa	Xaa
	20							25					30		

<210> 27
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<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = Ava (5-aminovaleric acid)

<221> VARIANT
 <222> 33
 <223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 27															
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Asp	Xaa
			20					25					30		
Xaa															

<210> 28
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 31
 <223> Xaa = Aun (11-aminoundecanoic acid)

<400> 28															
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	
			20					25					30		

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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<400> 29
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Xaa Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 30
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<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = D-Asp

<221> VARIANT
 <222> 32
 <223> Xaa = Ava (5-aminovaleric acid)

<221> VARIANT
 <222> 33
 <223> Xaa = Aun (11-aminoundecanoic acid)

<400> 30
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30
 Xaa

<210> 31
 <211> 30

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<220>
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<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 31
 His Gly Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 32
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<220>
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<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 32
 His Ser Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 33
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 33

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Glu
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

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<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

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<222>

<223> this sequence has an amidated c-terminus

<400> 34

His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

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<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 35

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Lys	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		

20

25

30

<210> 36

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<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 36

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Ala Lys Leu Phe Ile Ala Trp Leu Val Lys Xaa Arg

20

25

30

<210> 37

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<220>

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<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 37

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Lys Lys Xaa Arg

20

25

30

<210> 38

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 38

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Lys	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Leu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 39

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = D-Arg

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 39

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Xaa		
			20					25					30		

<210> 40

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = D-Arg

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 40
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
 20 25 30

<210> 41
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 21
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 41
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 42
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT

<222> 2, 21
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29, 31
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 42
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg
 20 25 30

<210> 43
 <211> 33
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 21
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29, 31
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 43
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg
 20 25 30

Arg

<210> 44
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 44

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Lys	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Lys	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 45

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 45

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Lys	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 46

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 46

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg	Gly	Arg
			20					25					30		

<210> 47

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 47

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 48

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = D-Arg

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 48

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	5	10	15
Gln	Ala	Ala	Lys
	Glu	Phe	Ile
	Ala	Trp	Leu
		Val	Lys
			Xaa
			Arg
	20	25	30

<210> 49
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 49																	
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly		
1				5					10					15			
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg	Arg			
			20					25					30				

<210> 50
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 50																	
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly		
1				5					10					15			
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Phe	Leu	Val	Lys	Xaa	Arg				
			20					25					30				

<210> 51

<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 51
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Phe Leu Val Lys Xaa Arg
 20 25 30

<210> 52
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 25
 <223> Xaa = Nal (naphthylalanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 52
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Xaa Leu Val Lys Xaa Arg
 20 25 30

<210> 53
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 22, 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 53

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Xaa	Ile	Ala	Xaa	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 54

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 25

<223> Xaa = Nal (naphthylalanine).

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 54

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Xaa	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 55

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 55

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Phe Leu Val Arg Xaa Arg
 20 25 30

<210> 56

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 13, 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 56

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Xaa Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Xaa Leu Val Lys Xaa Arg
 20 25 30

<210> 57

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 6, 25

<223> Xaa = Nal (naphthylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 57

His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Xaa Leu Val Lys Xaa Arg

20

25

30

<210> 58

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<400> 58

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa

20

25

30

<210> 59

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 59

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg

20

25

30

<210> 60

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-dodecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 60
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 61
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = O-decanoyl-serine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 61
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
 20 25 30

<210> 62
 <211> 33
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 21
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29, 31
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 33
 <223> Xaa = N-epsilon-octanoyl-lysine

<400> 62
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Xaa Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa Arg
 20 25 30
 Xaa

<210> 63
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 63
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
 20 25 30

<210> 64
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 64
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
 20 25 30

<210> 65
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 31
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 65
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
 20 25 30

<210> 66
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 66

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg		
			20				25						30		

<210> 67

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = Tma-His (N,N-tetramethylamidino-histidine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 67

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg		
			20				25						30		

<210> 68

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 31
 <223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 68
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Xaa
 20 25 30

 <210> 69
 <211> 32
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

 <221> VARIANT
 <222> 32
 <223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

 <221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

 <400> 69
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg Gly Xaa
 20 25 30

 <210> 70
 <211> 32
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Mutagen

 <221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

 <221> VARIANT
 <222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 31, 32

<223> Xaa = Aec (4-(2-aminoethyl)-1-carboxymethyl-piperazine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 70

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg	Xaa	Xaa
			20				25					30			

<210> 71

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 71

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 72

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 72

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 73
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 73
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 74
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 74
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

20

25

30

<210> 75

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N-alpha-Me-His (N-methyl histidine)

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 75

Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 76

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N-alpha-Me-His (N-alfa-methyl histidine)

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 76

Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 77
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 77
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 78
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 78
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 79
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = D-Ala

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 79

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 80

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 80

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 81

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 81

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Xaa	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 82

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 19, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 82

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Xaa	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 83

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 10, 14

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 83

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Xaa	Ser	Ser	Tyr	Xaa	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	5	10	15
Gln	Ala	Ala	Lys
	Glu	Phe	Ile
	Ala	Trp	Leu
		Val	Lys
			Xaa
			Arg
	20	25	30

<210> 84
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10, 23, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 84															
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Xaa	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 85
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 14, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 85															
His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 86

<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 14
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 86
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 87
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 87
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 88
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 88

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
		20					25					30			

<210> 89

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 89

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
		20					25					30			

<210> 90

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 90

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 91

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 6

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 91

His	Xaa	Glu	Gly	Thr	Xaa	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 92

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14

<223> Xaa = Cha (alpha-amino acid cyclohexylalanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 92

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 93

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 27

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 93

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Xaa	Lys	Xaa	Arg		
			20					25					30		

<210> 94

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 10,14

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 94

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Xaa	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10						15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 95
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 16
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Xaa
1				5				10						15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 96
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 16, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Xaa
1				5				10						15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 97
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 97

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Lys	Glu	Phe	Glu	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 98

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 19, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 98

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Xaa	Lys	Glu	Phe	Glu	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 99

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 19, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 10,14, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 99

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Xaa	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10						15	
Glu	Xaa	Xaa	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 100

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 100

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10						15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 101

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A5c (1-amino-1-cyclopentanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 101

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 102

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 102

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 103

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 24

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 103

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Xaa	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 104

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 19

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 104

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Xaa	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 105

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 10, 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 105

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Xaa	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 106

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 106

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 107

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14,
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 107
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 108
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 108
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 109
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 14

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 109

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
		20					25					30			

<210> 110

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 23, 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 110

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Xaa	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
		20					25					30			

<210> 111

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 23, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 111
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Lys Glu Phe Xaa Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 112
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 6
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 112
 His Xaa Glu Gly Thr Xaa Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 113
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 14

<223> Xaa = Cha (alpha-amino acid- cyclohexylalanine)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 113

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Xaa	Glu	Gly
1				5				10						15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25						30		

<210> 114

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 27

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 114

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10						15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Xaa	Lys	Xaa	Arg		
			20				25						30		

<210> 115

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 16, 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 115

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Xaa
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 116

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 16

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 116

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Xaa
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25					30			

<210> 117

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 117

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25						30		

<210> 118

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 118

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20				25						30		

<210> 119

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 119

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Xaa	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 120

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 19

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 120

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Xaa	Xaa	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 121
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 19
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 10,14, 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 121
 His Xaa Glu Gly Thr Phe Thr Ser Asp Xaa Ser Ser Tyr Xaa Glu Gly
 1 5 10 15
 Glu Xaa Xaa Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Arg
 20 25 30

<210> 122
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Arg

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 122
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 123

<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Lys

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 123
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 124
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Arg

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 124
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 125
 <211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = D-Lys

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 125
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 126
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 126
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 127
 <211> 30
 <212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 127

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 128

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 128

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 129

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 129

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20				25					30			

<210> 130

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 130

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Gly	
			20				25					30			

<210> 131

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

<400> 131
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
 20 25 30

<210> 132
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 31
 <223> Xaa = D-Ala

<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

<400> 132
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Xaa
 20 25 30

<210> 133
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2,29,31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 133

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20				25					30			

<210> 134

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 134

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20				25					30			

<210> 135

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 135

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
			20					25					30		

<210> 136

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222> 31

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 136

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Gly	Xaa	Xaa	
			20					25					30		

<210> 137

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 137

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Gly	Xaa	Xaa	
			20					25					30		

<210> 138

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT

<222>

<223> this sequence has a hydroxylated c-terminus

<400> 138

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	
			20					25					30		

<210> 139

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 31

<223> Xaa = Ado (12-aminododecanoic acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 139

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa
 20 25 30

<210> 140
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 31
 <223> Xaa = D- Ala

<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

<400> 140
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Xaa Xaa
 20 25 30

<210> 141
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

<400> 141
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

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      1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Arg Xaa Xaa
      20           25           30

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<210> 142
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 31
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has a hydroxylated c-terminus

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<400> 142
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Gly Arg Xaa Xaa
      20           25           30

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<210> 143
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

```

<400> 143
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15

```

Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 144
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 144
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 145
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 145
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 146
 <211> 30

<212> PRT
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<220>
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 146
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 147
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 147
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 148
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 148
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 149
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 149
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 150
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 150
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 151
 <211> 30
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 <213> Artificial Sequence

<220>
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 151
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 152
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 152

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 153

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 153

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 154

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 154

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 155

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 155

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 156

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 156

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 157

<211> 30

<212> PRT

<213> Artificial Sequence

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 157

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 158

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 158
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 159
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 159
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 160
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 160

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25				30			

<210> 161
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10				15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25				30			

<210> 162
 <211> 30
 <212> PRT
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<220>
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>

<223> this sequence has an amidated c-terminus

<400> 162

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 163

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 163

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 164

<211> 30

<212> PRT

<213> Artificial Sequence

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<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 164
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 165
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 165
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 166
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 166
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

30

<210> 167

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 167

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

30

<210> 168

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 168

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

30

<210> 169

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 169

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 170

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 170

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 171

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 171
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 172
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 172
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 173
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 173

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20						25					30		

<210> 174

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 174

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20						25					30		

<210> 175

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 175

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20						25					30		

<210> 176

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 176

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20						25					30		

<210> 177

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

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<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 177

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 178
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
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<221> VARIANT
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 <223> this sequence has an amidated c-terminus

<400> 178
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 179
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 179
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 180
 <211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 180
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 181
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 181
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 182
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 182
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 183
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 183
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 184
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> CONFLICT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 184
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 185
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 185
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 186
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 186

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
			20					25					30		

<210> 187

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 187

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
			20					25					30		

<210> 188

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 188

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	5	10	15												
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
	20			25					30						

<210> 189
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 189
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
20 25 30

<210> 190
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 190
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
20 25 30

<210> 191

<211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 191
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 192
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 192
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 193
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 193

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 194

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> CONFLICT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 194

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 195

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 195

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 196

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 196

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 197

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 197

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 198

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 198

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 199

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> Xaa = N-epsilon-octanoyl-lysine

<400> 199

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 200
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 201
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 202
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 202
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 203
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 203
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 204

<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 204
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 205
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 205
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

30

<210> 206

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 206

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		

Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg
			20				25						30

<210> 207

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 207

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 208

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 208

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 209

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 209

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 210

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 210

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 211

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 211
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 212
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 212
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 213
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 213
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 214
 <211> 30
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<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 214
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 215
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

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<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 215

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
		20					25						30		

<210> 216

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 216

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
		20					25						30		

<210> 217

<211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

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<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 217
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 218
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 218
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 219
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 219
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 220
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 220
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa

1 5 10 15
20 25 30

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<210> 221
<211> 30
<212> PRT
<213> Artificial Sequence
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<220>
<223> Mutagen

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<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)
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<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)
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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-tetradecanoyl-lysine
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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus
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<400> 221
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1          5          10          15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
      20          25          30

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<210> 222
<211> 30
<212> PRT
<213> Artificial Sequence
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<220>
<223> Mutagen

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<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)
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<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)
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<221> VARIANT
<222> 30
<223> Xaa = N-epsilon-hexadecanoyl-lysine
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<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus
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<400> 222
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 223
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 223
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 224
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 224

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 225

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 225

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 226

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 226

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 227

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 227

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 228

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 228

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20				25					30			

<210> 229

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 229

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20				25					30			

<210> 230

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 230

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 231

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 231

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Lys	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 232

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
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 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 232
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 233
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 233
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 234
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 234

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 235

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 235

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 236

<211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 236
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 237
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 237
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg
 20 25 30

<210> 238
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 238
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Xaa Val Arg Xaa Arg
 20 25 30

<210> 239
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 239
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15
Gln	Ala	Ala	Xaa
	Glu	Phe	Ile
	Ala	Trp	Xaa
		Val	Arg
		Xaa	Arg
	20	25	30

<210> 240
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 240
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

<210> 241
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 241

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
      20           25           30

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<210> 242

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 242

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His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
      20           25           30

```

<210> 243

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 243

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 244

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 244

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 245

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 245
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

<210> 246
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 246
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Lys Xaa Xaa
 20 25 30

<210> 247
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 247

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20				25						30		

<210> 248

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 248

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20				25						30		

<210> 249

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 249

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20				25						30		

<210> 250

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 250

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20				25						30		

<210> 251

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 251

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25					30			

<210> 252

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 252

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25					30			

<210> 253

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 253

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 254

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 254

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 255

<211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 255
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 256
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 256
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 257
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 257
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 258
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 258
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 259
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 259

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20					25					30			

<210> 260

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 260

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20					25					30			

<210> 261

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 261

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20						25					30		

<210> 262

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 262

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Xaa	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20						25					30		

<210> 263

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 263

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	5	10	15
Gln Xaa Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa			
20	25	30	

<210> 264
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 18, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 264
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Glu Xaa Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
20 25 30

<210> 265
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 265
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15

Glu Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 266
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 266
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 267
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 267
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 268
 <211> 30

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 268
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 269
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 26
 <223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 269
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Xaa Val Xaa Xaa Arg
 20 25 30

<210> 270
 <211> 30
 <212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 270

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 271

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 271

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 272

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 272
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 273
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 273
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Glu Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Xaa
 20 25 30

<210> 274
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 274

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa		
			20				25					30			

<210> 275

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 275

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Xaa		
			20				25					30			

<210> 276

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 276

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 277

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 277

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 278

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 278

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Glu Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 279
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 279
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 280
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 280
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 281
 <211> 30

<212> PRT
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<220>
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<221> VARIANT
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 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 281
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Xaa Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 282
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 282
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 283
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 283
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 284
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 284
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 285
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 285
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 286
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 286
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Xaa Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 287
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> 2, 24, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 287

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 288

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 288

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20					25					30		

<210> 289

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 289

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20				25					30			

<210> 290

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 290

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Lys	Xaa	Xaa		
			20				25					30			

<210> 291

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 291

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25						30		

<210> 292

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 292

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25						30		

<210> 293

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 293

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25					30			

<210> 294

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 294

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25					30			

<210> 295

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 295

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25					30			

<210> 296

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 296

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25					30			

<210> 297

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 297

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25						30		

<210> 298

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 26

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-tetradecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 298

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25						30		

<210> 299

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 18, 24, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = A6c (1-amino-1-cyclohexanecarboxylic acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-hexadecanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 299

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Glu	Xaa	Ala	Arg	Glu	Phe	Ile	Xaa	Trp	Xaa	Val	Arg	Xaa	Xaa		
			20				25						30		

<210> 300

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-HEPES-His
(N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesulfonic acid)-histidine

<221> VARIANT

<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 300

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20				25						30		

<210> 301
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-HEPES-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesu
 lfonic
 acid)-histidine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 301
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 302
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-HEPES-His
 (N-alpha-(4-(2-hydroxyethyl)-1-piperazine-ethanesu
 lfonic
 acid)-histidine

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 302

Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 303

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-HEPA-His
(N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
histidine

<221> VARIANT

<222> 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 303

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Xaa	Arg		
			20					25					30		

<210> 304

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-HEPA-His
(N-alpha-(4-(2-hydroxyethyl)-1-piperazineacetyl)-
histidine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 304
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 305
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-HEPA-His
 (N-alpha- (4- (2-hydroxyethyl) -1-piperazineacetyl) -
 histidine

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 305
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 306
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 306

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Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20           25           30

```

<210> 307

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 307

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Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
      20           25           30

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<210> 308

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 308

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Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg

```

20 25 30

<210> 309
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 2
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 309
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Lys Glu Phe Ile Ala Trp Leu Val Lys Xaa Arg
 20 25 30

<210> 310
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 310
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 311
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 29
 <223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 311
 Xaa Ala Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 312
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 1
 <223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 312
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 313
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT

<222> 2

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 313

Xaa	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 314

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT

<222> 29

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 314

Xaa	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 315

<211> 30

<212> PRT

<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 315
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 316
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Mutagen

<221> VARIANT
<222> 1
<223> Xaa = N alfa-tetradecanoyl- histadine

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

<400> 316
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
20 25 30

<210> 317
<211> 30
<212> PRT
<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 317

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 318

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = N-epsilon-dodecanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 318

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 319

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 319
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 320
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 320
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 321
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa = N-epsilon-dodecanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 321

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 322

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 322

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 323

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-octanesulfonyl- lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 323

```

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20           25           30

```

<210> 324
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = N-epsilon-hexadecanesulfonyl-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

```

<400> 324
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20           25           30

```

<210> 325
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

```

<400> 325
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1           5           10           15
Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
      20           25           30

```

<210> 326
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 326
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 327
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 327
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 328
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 328

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 329

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 329

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 330

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 330

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 331

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 331

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 332

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 332

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 333

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 333

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 334

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 334

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 335

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 335

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 336

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 336

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Gly	Xaa
			20					25					30		

<210> 337
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 337
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa
 20 25 30

<210> 338
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 338
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa Gly Xaa
 20 25 30

<210> 339
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 339

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Gly	Xaa
			20					25					30		

<210> 340

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 340

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Xaa	Xaa
			20					25					30		

<210> 341

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 341

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Xaa	Xaa
			20				25					30			

<210> 342

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 342

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Xaa	Xaa
			20				25					30			

<210> 343

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 343

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa	Xaa	Xaa
			20					25					30		

<210> 344

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2,29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 344

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 345

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 345

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25				30			

<210> 346

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 346

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25				30			

<210> 347

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<400> 347

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		

20

25

30

<210> 348

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 348

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

30

<210> 349

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 349

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1

5

10

15

Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg

20

25

30

<210> 350

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 350

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 351

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 351

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25						30		

<210> 352

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 352

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 353

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 353

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 354

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30
 <223> Xaa =
 1-(4-tetradecyl-piperazine)-acetyl)asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 354
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 355
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 355
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 356
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> CONFLICT

<222>

<223> this sequence has an amidated c-terminus

<400> 356

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
		20						25					30		

<210> 357

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<400> 357

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
		20						25					30		

<210> 358

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 358

His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

1	5	10	15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa			
20	25	30	

<210> 359
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 359
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
20 25 30

<210> 360
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-decyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 360
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
1 5 10 15
Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
20 25 30

<210> 361

<211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-dodecyl-piperazine)- asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 361
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 362
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa = 1-(4-tetradecyl-piperazine)-asparagines

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 362
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 363
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-(4-hexadecyl-piperazine)- asparagines

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 363

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 364

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 364

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 365

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 365

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 366

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 366

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20				25					30			

<210> 367

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa = 1-dodecylamino-glutamine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 367

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20					25					30		

<210> 368

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 368

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20					25					30		

<210> 369

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 369

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25					30		

<210> 370

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 370

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25					30		

<210> 371

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =
N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 371

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
		20						25					30		

<210> 372

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa =

N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 372

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20						25					30		

<210> 373

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 373

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 374
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa =
 N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
			20					25					30		

<210> 375
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 375
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly

```

      1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
      20             25             30

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<210> 376
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

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<400> 376
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20             25             30

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<210> 377
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 30
 <223> Xaa =
 N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

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<400> 377
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa

```

20

25

30

<210> 378

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa =

N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 378

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 379

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 379

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
			20					25					30		

<210> 380
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 380
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 381
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 381
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 382

<211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly
 sine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 382
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 383
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29, 31
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 383
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
 20 25 30

<210> 384
 <211> 32
 <212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =
N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 384

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20				25					30			

<210> 385

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 385

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20				25					30			

<210> 386

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =
N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 386

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
			20				25					30			

<210> 387

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =
N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 387

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 388

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 388

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 389

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 20

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 389

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Xaa	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg		
			20				25					30			

<210> 390

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 20
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 390
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Xaa Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg
 20 25 30

<210> 391
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 28
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 391
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Xaa Xaa Arg
 20 25 30

<210> 392
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa =
N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 392

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20					25						30		

<210> 393

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa =
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 393

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20					25						30		

<210> 394

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa =
N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 394

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Xaa	Xaa	Arg		
		20					25					30			

<210> 395

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa =
N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 395

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 396

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa =
N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysi
ne

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 396

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 397

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa =
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)ly
sine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 397

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
		20					25					30			

<210> 398

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30
 <223> Xaa =
 N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 398
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
 20 25 30

<210> 399
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =
 N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT
 <222>
 <223> this sequence has an amidated c-terminus

<400> 399
 His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
 1 5 10 15
 Gln Ala Arg Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Gly Xaa
 20 25 30

<210> 400
 <211> 32
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Mutagen

<221> VARIANT
 <222> 2, 29
 <223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT
 <222> 32
 <223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 400

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
		20						25					30		

<210> 401

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 401

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
		20						25					30		

<210> 402

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-ly

sine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 402

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Gly	Xaa
		20						25				30			

<210> 403

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-decyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 403

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
		20						25				30			

<210> 404

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =

N-epsilon-(2-(4-dodecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 404

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
		20						25					30		

<210> 405

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =
N-epsilon-(2-(4-tetradecyl-1-piperazine)-acetyl)lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 405

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
		20						25					30		

<210> 406

<211> 32

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29, 31

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 32

<223> Xaa =
N-epsilon-(2-(4-hexadecyl-1-piperazine)-acetyl)-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 406

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Arg	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	Xaa
		20						25					30		

<210> 407

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an hydroxydated c-terminus

<400> 407

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Xaa		
			20					25					30		

<210> 408

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 2, 29

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an hydroxydated c-terminus

<400> 408

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

```

      1             5             10             15
Gln Ala Lys Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Xaa
      20             25             30

```

```

<210> 409
<211> 32
<212> PRT
<213> Artificial Sequence

```

```

<220>
<223> Mutagen

```

```

<221> VARIANT
<222> 2, 29
<223> Xaa = Aib (alpha-aminoisobutyric acid)

```

```

<221> VARIANT
<222> 31
<223> Xaa = Ava (5-aminovaleric acid)

```

```

<221> VARIANT
<222> 32
<223> Xaa = Ado (12-aminododecanoic acid)

```

```

<221> VARIANT
<222>
<223> this sequence has an amidated c-terminus

```

```

<400> 409
His Xaa Glu Gly Thr Phe Thr Ser Asp Val Ser Ser Tyr Leu Glu Gly
  1             5             10             15
Gln Ala Ala Arg Glu Phe Ile Ala Trp Leu Val Arg Xaa Arg Xaa Xaa
      20             25             30

```

```

<210> 410
<211> 31
<212> PRT
<213> Artificial Sequence

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```

<220>
<223> Mutagen

```

```

<221> VARIANT
<222> 2
<223> Xaa = Aib (alpha-aminoisobutyric acid)

```

```

<221> VARIANT
<222> 29
<223> Xaa = beta-Ala (beta-alanine)

```

```

<221> VARIANT
<222> 31
<223> Xaa = N-epsilon-dodecanoyl-lysine

```

```

<221> VARIANT
<222>

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<400> 410

His	Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa	
			20					25					30		

<210> 411

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 1

<223> Xaa = Aib (alpha-aminoisobutyric acid)

<221> VARIANT

<222> 28

<223> Xaa = beta-Ala (beta-alanine)

<221> VARIANT

<222> 30

<223> Xaa = N-epsilon-decanoyl-lysine

<221> VARIANT

<222>

<223> this sequence has an amidated c-terminus

<400> 411

Xaa	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly	Gln
1				5					10					15	
Ala	Ala	Arg	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Xaa	Arg	Xaa		
			20					25					30		

<210> 412

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary motif

<221> VARIANT

<222> 1

<223> Xaa = L-His, Ura, Paa, Pta, Amp, Tma-His,
Des-amino-His, or deleted

<221> VARIANT

<222> 2

<223> Xaa = Ala, D-Ala, Aib, Acc, N-Me-Ala, N-Me-D-Ala,
or N-Me-Gly

<221> VARIANT

<222> 3

<223> Xaa = Glu, N-Me-Glu, N-Me- Asp, or Asp

<221> VARIANT
<222> 4
<223> Xaa = Gly, Acc, beta-Ala, or Aib

<221> VARIANT
<222> 5
<223> Xaa = Thr, or Ser

<221> VARIANT
<222> 6
<223> Xaa = Phe, Acc, Aic, Aib, 3-Pal, 4-Pal, beta-Nal, Cha, Trp, or X1-Phe

<221> VARIANT
<222> 7
<223> Xaa = Thr, or Ser

<221> VARIANT
<222> 8
<223> Xaa = Ser, or Aib

<221> VARIANT
<222> 9
<223> Xaa = Asp, or Glu

<221> VARIANT
<222> 10
<223> Xaa = Val, Acc, Aib, Leu, Ile, Tle, Nle, Abu, Ala, or Cha

<221> VARIANT
<222> 11
<223> Xaa = Ser, or Thr

<221> VARIANT
<222> 12
<223> Xaa = Ser, or Thr

<221> VARIANT
<222> 13
<223> Xaa = Tyr, Cha, Phe, 3-Pal, 4-Pal, Acc, beta-Nal, or X1-Phe

<221> VARIANT
<222> 14
<223> Xaa = Leu, Acc, Aib, Nle, Ile, Cha, Tle, Val, Phe, or X1-Phe

<221> VARIANT
<222> 15
<223> Xaa = Glu, or Asp

<221> VARIANT
<222> 16
<223> Xaa = Gly, Acc, beta-Ala, Glu, or Aib

<221> VARIANT
<222> 17
<223> Xaa = Gln, Asp, Asn, or Glu

<221> VARIANT

<222> 18

<223> Xaa = Ala, Aib, Val, Abu, Tle, or Acc

<221> VARIANT

<222> 19

<223> Xaa = Ala, Aib, Val, Abu, Tle, Acc, Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), OR NH-CH((CH₂)_e-X₃)-C(O)

<221> VARIANT

<222> 20

<223> Xaa = Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), OR NH-CH((CH₂)-X₃)-C(O)

<221> VARIANT

<222> 21

<223> Xaa = Glu Asp, Leu, Aib, or Lys

<221> VARIANT

<222> 22

<223> Xaa = Phe, Pal, beta-Nal, X1-Phe, Aic, Acc, Aib, Cha, or Trp

<221> VARIANT

<222> 23

<223> Xaa = Ile, Acc, Aib, Leu, Nle, Cha, Tle, Val, Abu, Ala, or Phe

<221> VARIANT

<222> 24

<223> Xaa = Ala, Aib, or Acc

<221> VARIANT

<222> 25

<223> Xaa = Trp, beta-Nal, 3-Pal, 4-Pal, Phe, Acc, Aib, or Cha

<221> VARIANT

<222> 26

<223> Xaa = Leu, Acc, Aib, Nle, Ile, Cha, Tle, Phe, X1-Phe, or Ala

<221> VARIANT

<222> 27

<223> Xaa = Val, Acc, Aib, Leu, Ile, Tle, Nle, Cha, Ala, Phe, Abu, Lys, or X1-Phe

<221> VARIANT

<222> 28

<223> Xaa = Lys, Arg, hArg, Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), or NH-CH((CH₂)_e-X₃)-C(O)

<221> VARIANT

<222> 29

<223> Xaa = Gly, beta-Ala, D-Ala, Gaba, Ava, NH-(CH₂)_m-C(O), Aib, Acc or D-amino acid

<221> VARIANT

<222> 30

<223> Xaa = L-or D-Arg, D-or L-Lys, D-or L-hArg, D-or L-Orn, HN-CH((CH₂)_n-N(R₁₀-R₁₁))-C(O), NH-CH((CH₂)_e-X₃)-C(O) or deleted

<221> VARIANT

<222> 31

<223> Xaa = Gly, beta-Ala, Gaba, Ava, Aib, Acc, Ado, Arg, Asp, Aun, Aec, NH-(CH₂)_m-C(O), HN-CH((CH₂)_n-N(R10-R11))-C(O), a D-amino acid, or deleted

<221> VARIANT

<222> 32

<223> Xaa = D-or L-Lys, D-or L-Arg, D-or L-hArg, D-or L-Orn, HN-CH((CH₂)_n-N(R10-R11))-C(O), NH-CH((CH₂)_e-X3)-C(O)Ava, Ado, Aec, or deleted

<221> VARIANT

<222> 33

<223> Xaa = D-or L-Lys, D-or L-Arg, HN-CH((CH₂)_n-N(R10-R11))-C(O), Ava, Ado, or Aec

<400> 412

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
1				5					10					15		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
				20					25					30		
Xaa																

<210> 413

<211> 31

<212> PRT

<213> Homo sapiens

<400> 413

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly	
			20					25					30		

<210> 414

<211> 32

<212> PRT

<213> Homo sapiens

<400> 414

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg	Gly	Arg
			20					25					30		

<210> 415

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Mutagen

<221> VARIANT

<222> 13

<223> Xaa = 125I radiolabeled Tyr

<400> 415

His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Xaa	Leu	Glu	Gly
1				5				10					15		
Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg		
			20					25					30		